

AZURE VS AWS : Comparison

AZURE

The Django application was hosted on azure virtual machine. Below are the steps we followed -

- Login in to azure. Go to portal and create a virtual machine with suitable settings. You'll get the IP for your machine. We've chosen Ubuntu 18.04.
- Open Powershell and connect to VM using ssh. The command is "ssh username@IPaddr".
- Type in your password and you're in your virtual machine.
- We've followed the guide and did the necessities .
<https://www.digitalocean.com/community/tutorials/how-to-set-up-django-with-postgres-nginx-and-gunicorn-on-ubuntu-18-04>
- After the gunicon server and nginx is set up, our website was live on servers.
Additional settings to add were Network Security Groups, Ports and watching the logs for request.

The deployed application can be viewed here :-

<http://20.75.48.204/>

The screenshot displays the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information for 'parikshitfj@outlook.com'. The main content area is titled 'Farmer-App-Vmachine' and shows the 'Overview' tab. The 'Essentials' section provides key details: Resource group (Test-1), Status (Running), Location (East US 2 (Zone 1)), Subscription (Azure for Students), and Public IP address (20.75.48.204). The 'Properties' section lists VM details such as Computer name (Farmer-App-Vmachine), Operating system (Linux (ubuntu 18.04)), Publisher (Canonical), Offer (UbuntuServer), Plan (18.04-LTS), VM generation (V1), Agent status (Ready), Agent version (2.2.53), Host group (None), Host (-), Proximity placement group (N/A), and Colocation status (N/A). The 'Networking' section shows the Public IP address (20.75.48.204), Private IP address (10.0.2.4), and Virtual network/subnet (Test-1-vnet/default). The 'Size' section indicates the VM size (Standard B1ls) with 1 vCPU and 0.5 GiB RAM. The 'Disk' section shows the OS disk (Farmer-App-).

AWS EC2 Instance

The Django application was hosted on EC2 Instance. Below are the steps we followed -

- Launching an EC2 instance
- Connecting the EC2 instance on local machine
- Configure EC2 instance (Install Apache2, pip, apache module for wsgi, and virtual environment)
- Clone the Django Application Repository.
- Create a virtual Environment
- Install the necessary packages
- Test run the application
- Configure Apache to point to our django application
- <https://medium.com/saarthi-ai/ec2apachedjango-838e3f6014ab> - Follow up from this article

aws

Services

Resource Groups

🔔

Kunal Yadav

Mumbai

Support

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Lifecycle Manager

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

LOAD BALANCING

Load Balancers

Target Groups

AUTO SCALING

Launch Configurations

Resources

You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) region:

0 Running Instances

0 Elastic IPs

0 Dedicated Hosts

0 Snapshots

0 Volumes

0 Load Balancers

1 Key Pairs

3 Security Groups

0 Placement Groups

Learn more about the latest in AWS Compute from AWS re:Invent 2017 by viewing the [EC2 Videos](#).

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

Launch Instance

Note: Your instances will launch in the Asia Pacific (Mumbai) region

Service Health

Service Status:

Asia Pacific (Mumbai):

Availability Zone Status:

ap-south-1a:

Availability zone is operating normally

ap-south-1b:

Availability zone is operating normally

[Service Health Dashboard](#)

Scheduled Events

Asia Pacific (Mumbai):

No events

Account Attributes

Supported Platforms

VPC

Default VPC

vpc-d92178b1

Resource ID length management

Console experiments

Additional Information

Getting Started Guide

Documentation

All EC2 Resources

Forums

Pricing

Contact Us

AWS Marketplace

Find free software trial products in the AWS Marketplace from the [EC2 Launch Wizard](#). Or try these popular AMIs:

Barracuda CloudGen Firewall for AWS - PAYG

By Barracuda Networks, Inc.

Rating

Starting from \$0.60/hr or from \$4,599/yr (12% savings) for software + AWS usage fees

[View all Infrastructure Software](#)

Matillion ETL for Amazon Redshift

By Matillion

Rating

Feedback

English (US)

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AWS EC2 Instance -

Elastic Compute Cloud (EC2) is an Infrastructure as a Service product, and is Amazon’s flagship offering. Before we’re able to deploy an application on Elastic Compute Cloud, we have to develop server infrastructure that will suit our application.

choose and set up an operating system; and set up a load balancer to spread the load across multiple application servers. On top of that, we must select a CPU and amounts of RAM and storage that satisfy our application’s needs. We’ll also install backup servers and hook them up to the main servers.

Elastic Compute Cloud provides us only with the building blocks. Our task is to select the best blocks for our application and actively manage them, not only set them up. At many web development companies, a dedicated DevOps engineer is responsible for provisioning EC2 instances, controlling application deployment, and orchestrating EC2 infrastructure (deciding how these ‘building blocks’ interact with each other).

AWS vs Azure Features :

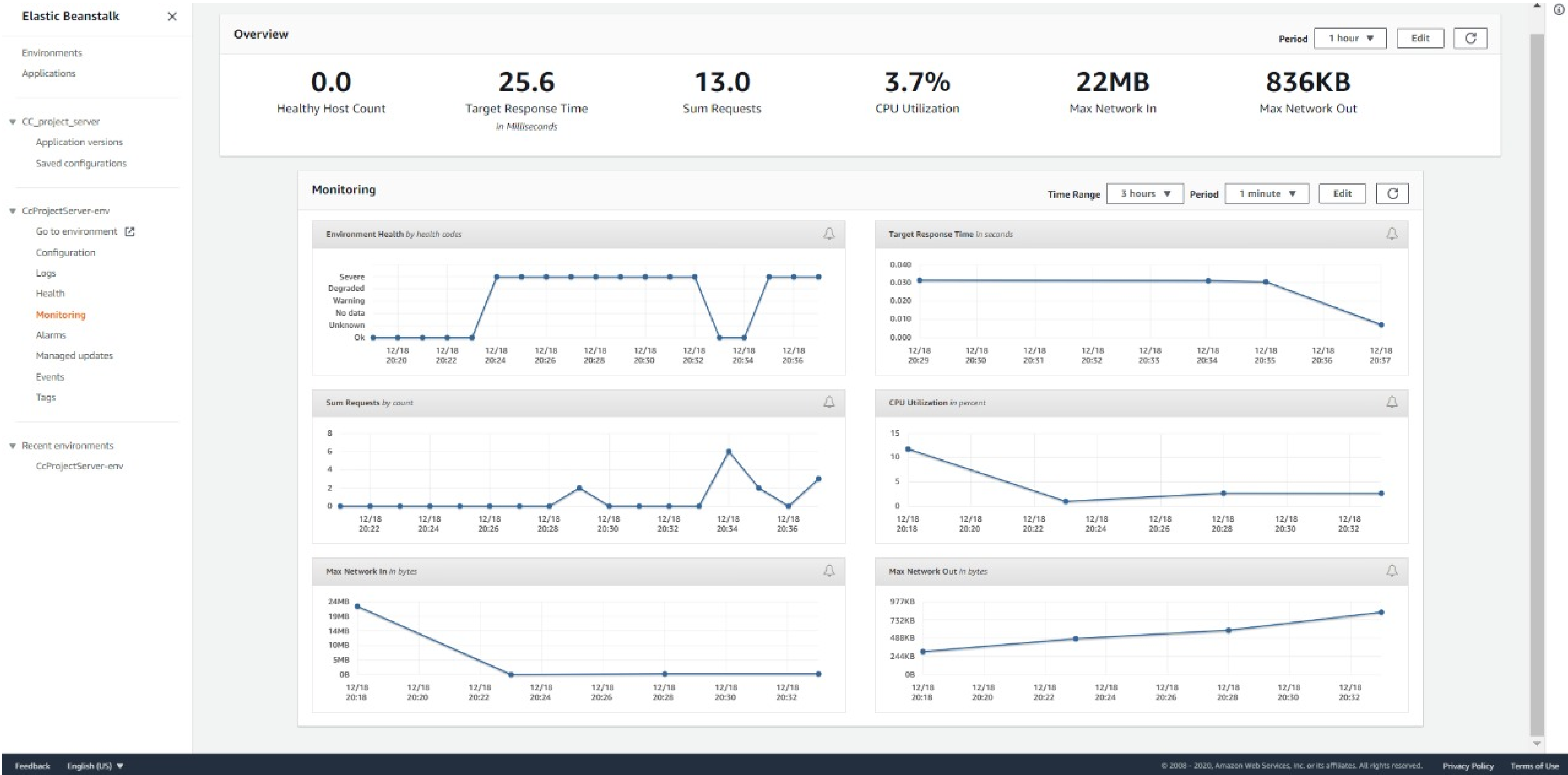
		Put simply:
Compute Virtual Machines	Elastic Compute Cloud (EC2)	Virtual servers to process workloads as you would a normal server
Azure Storage (Blobs, Tables, Queues, Files)	S3 - Scalable Storage in the cloud	Redundant storage in the cloud
Azure Active Directory	IAM	User & access management
SQL Database	Amazon RDS	Scalable databases in the cloud
Azure DNS	Route 53	Highly available Domain Name Service
Azure Application Insights	Cloudwatch	Monitoring of various cloud services

AWS - Azure (memory, Storage and Size)

Resource Type (us-east, Linux)	AWS Instance	AWS Memory	AWS Storage	Azure Instance	Azure Memory	Azure Storage
Standard 2 vCPU w SSD	m3.large	8	32	D2 v2	7	100
Highmem 2 vCPU w SSD	r3.large	15	32	D11 v2	14	100
Highcpu 2 vCPU w SSD	c3.large	3.75	32	F2	4	32
Standard 2 vCPU no SSD	m4.large	8	0	D2 v2	7	100
Highmem 2 vCPU no SSD	r4.large	15.25	0	D11 v2	14	100
Highcpu 2 vCPU no SSD	c4.large	3.75	0	F2	4	32

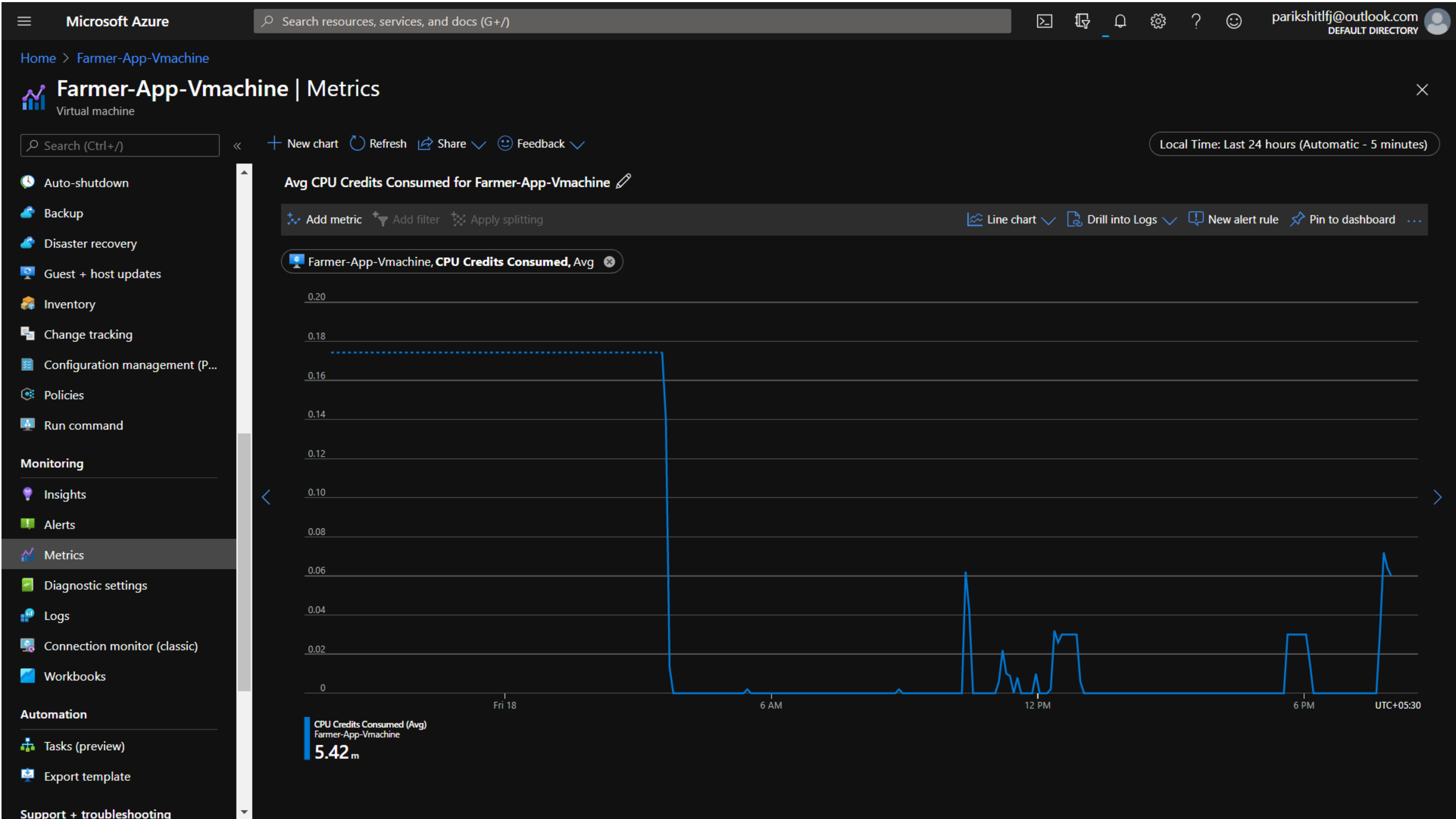
Looking at the data we can observe that we cannot really rank them. It totally depends upon individual needs. For example, if an organisation wants a lot of storage and is ready to compromise memory. They'll opt azure over AWS, where as if a company wants more memory and can compromise storage. They'll go for AWS. So it is unto an individual.

Metrics



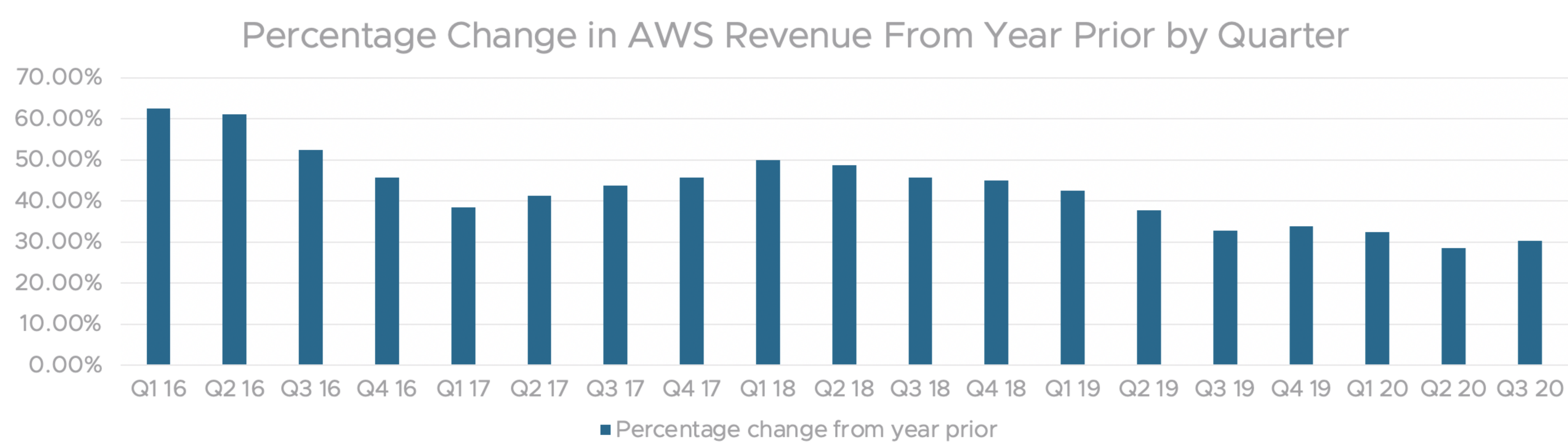
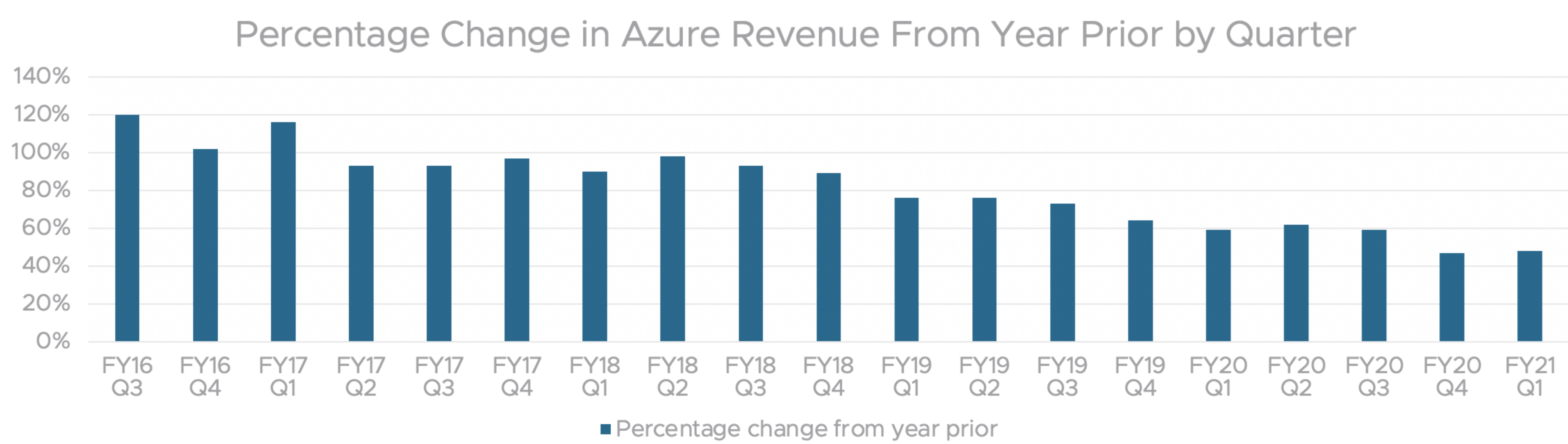
AWS Metric

Azure Metric



With the help of above tools we can analyse the performance. How is our machine running. Number of CPU cores it uses, the request to response time. An attractive graphical representation can be observed and according to the stats and some further studies we conclude that response

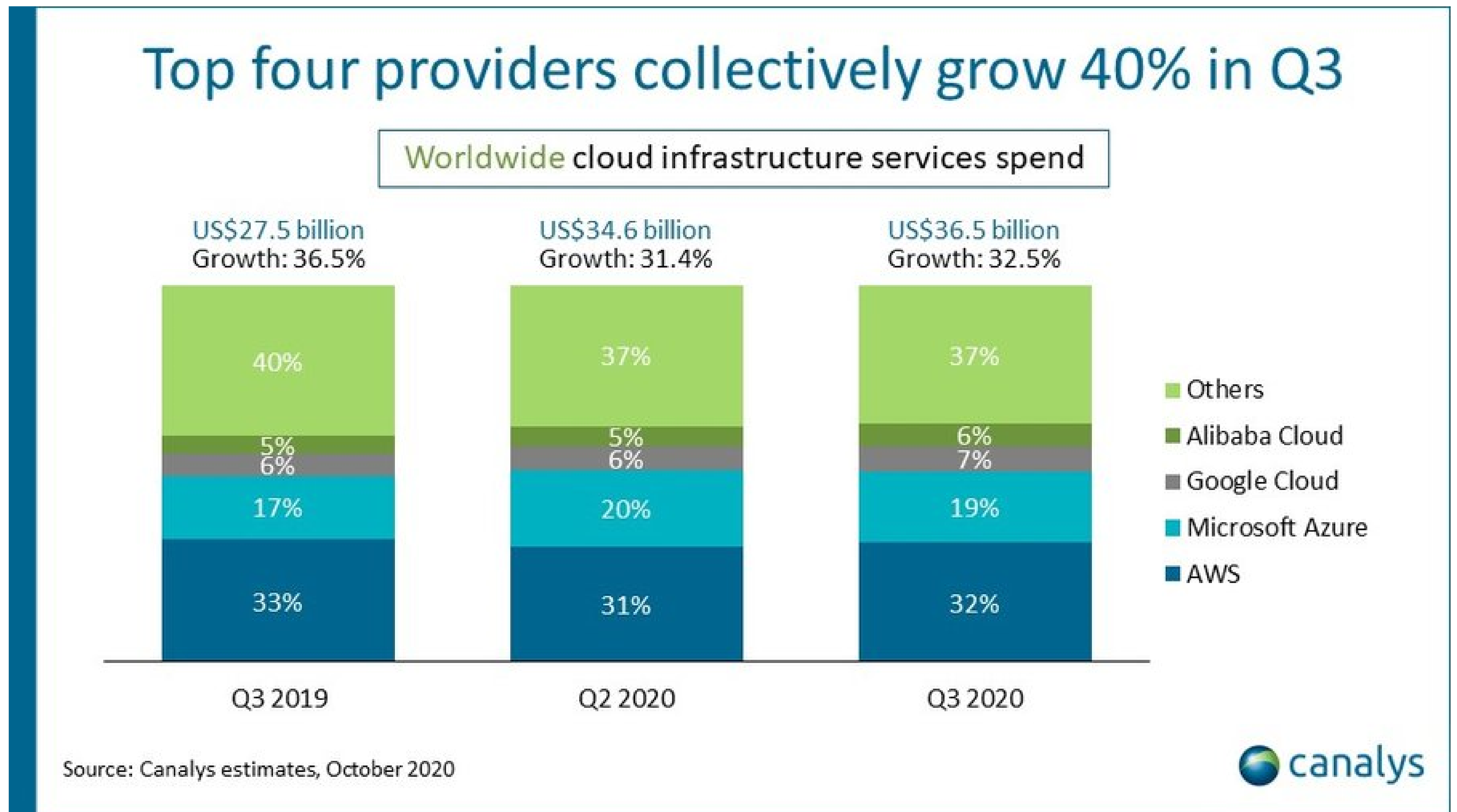
AWS vs Azure Market -



Source - <https://www.cloudhealthtech.com/blog/azure-vs-aws-comparison-azure-really-catching>

From this chart, we can see that, similar to AWS, Azure continues to experience significant growth year over year, but at a diminishing rate over time. In the past few years, Azure has had higher revenue growth rates when compared directly to AWS. Most recently in Q3 2020, Azure’s revenue growth was 48% compared to AWS’ revenue growth of 30.3%. Although Azure’s growth rates are higher in the last four years, Azure’s revenue growth rate is diminishing at a faster rate than AWS. AWS’s growth rate between that period decreased by 50%, while Azure’s growth rate decreased by 60% in the same time frame.

Canalys Analysis -



Canalys offers a representation of the cloud provider market, with AWS holding 32% and Azure holding 19%.

At the end of the day, we can gather that AWS is still clearly the market leader. While they don't double the market share of other cloud providers as they had in the past, it's primarily because other players are entering the game and leveling the playing field, such as Google Cloud Platform, Alibaba, Oracle Cloud Infrastructure, and others.

Is AWS better than Azure ?

There are several factors to consider, and ultimately, the choice between the two—or the choice to use both platforms—will depend on each organization's unique needs and how the results of an Azure vs AWS comparison align with those needs. For now, there's nothing like who is the winner but it totally depends on an organisations need.